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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,558	01/22/2001	Timothy B. Meluch	ALT-5612 CON of DIV I	3046

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Paula Kelly, Esq.
Renal Division
Baxter International Inc.
One Baxter Parkway
Deerfield, IL 60015

EXAMINER

FORTUNA, ANA M

ART UNIT

PAPER NUMBER

1723

DATE MAILED: 12/07/2001

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Please find below and/or attached an Office communication concerning this application or proceeding.

MF-15

Office Action Summary

Application No.

09/767,558

Applicant(s)

Meluch et al

Examiner

Ana Fortuna

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Sep 24, 2001
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 U.S.C. § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8, 10-14, 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Pemawansa (5,279,739)('739). Reference '739 discloses the claimed polysulfone membrane having uniform structure and made from a mixture containing a solvent for the polysulfone e.g. polyarylether sulfone, polysulfone, polyether sulfone (abstract, column 3, lines 43-68, column 4, and column 6, lines 1-22). Regarding to claims 5, and 16-17, the membrane made including mixtures of solvent and non-solvents or pore formers is also disclosed (column 5, lines 25-67). As to claims 4, 12, 13, 14, 16, directed to the membrane made of specific list of solvents, the solvent is disclosed by reference '739, e.g. sulfolane (tetramethylene sulfone) (column 5, lines 59-61). Regarding claims 6, 18, reference '739 discloses the non-solvent (or pore former) as part of the membrane making mixture, e.g. ethylene glycol (column 5, lines 61-67). Regarding claims 10-11, the composition is also disclosed (column 5, lines 25-50).

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Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 15, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pemawansa (5,279,739)('739). Reference '739 discussed in the paragraph above discloses the solvents and non solvent of the polysulfone, the ratio of solvent to non-solvent is not disclosed, however, adding from 1 to 10 % or ethylene glycol or pore former (non-solvent), and modifying the amount depending on the final pore desired in the membrane is disclosed. Therefore, adjusting the polymer mixture viscosity by adjusting the amount of solvent, and adjusting the ratio to obtaining a desire pore size it would have been obvious to one skilled in the art. As to claim 9, the use of bisphenol A polysulfone as equivalent to polysulfone is admitted by Applicant in claim 8.

Response to Amendment

4. In Applicant's remarks filed on 9/24/2001, the rejection under 102 (b) as anticipated by Pemawansa is argued; the arguments are based in the lack of teaching of the membrane having "uniform structure", and in that the membrane is made by a melt-spun process. The rejection is maintained because the product as claimed is not limited to a particular process, and even though the process steps are include, product by process claims are products. In response to the

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uniformity of the membrane reference '739 teaches making the membrane from a solution containing the polysulfone, solvent and non-solvent mixture totally blended, casted on a substrate and dispersed by a doctor blade in an uniform manner to produce a membrane with thickness of 10 mils, and with smooth surface (column 5, lines 59-68, column 6, lines 1-14), therefore, the final membrane is homogeneous and uniform. Since the claims are not directed to a particular process which modifies the final membrane structure, as compared to the structure produced by the membrane of '739 from the same composition, any internal structure is considered to be inherent of the product.

In response to arguments in page 2, second paragraph, the membrane of '739 can be either a microfiltration, ultrafiltration, reverse osmosis or nanofiltration membrane.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, in particular directed to polysulfone hollow fiber membranes made by melt spun process.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana Fortuna whose telephone number is (703) 308-3857. The examiner can normally be reached on Monday-Friday from 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached on (703) 308-0457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 for regular responses, and (703)872-9311 for after finals.

Ana Fortuna

November 29, 2001



ANA FORTUNA
PRIMARY EXAMINER